

**Table C-109. Federal obligations for applied research, by detailed field of science and engineering:
fiscal years 1980-1990**

[Dollars in millions]

| Field of science and engineering | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|
| Total, all fields | 6,923.2 | 7,171.5 | 7,540.6 | 7,993.4 | 7,911.4 | 8,314.7 | 8,349.1 | 8,998.1 | 9,176.5 | 10,163.5 | 10,336.8 |
| Life sciences, total | 2,137.9 | 2,211.8 | 2,219.5 | 2,286.6 | 2,348.3 | 2,575.9 | 2,605.5 | 2,979.5 | 3,222.7 | 3,579.4 | 3,652.3 |
| Biol & agricultural, total | 1,168.1 | 1,249.4 | 1,137.0 | 1,135.6 | 1,150.3 | 1,239.8 | 1,318.4 | 1,488.1 | 1,718.0 | 1,917.2 | 1,959.4 |
| Biol (excl environmental) | 730.8 | 794.9 | 678.1 | 683.7 | 727.3 | 779.3 | 841.9 | 1,040.5 | 1,266.8 | 1,336.0 | 1,402.5 |
| Environmental biology | 143.6 | 137.0 | 100.4 | 101.0 | 129.2 | 134.6 | 138.3 | 148.6 | 154.2 | 210.5 | 174.0 |
| Agricultural | 293.7 | 317.4 | 358.6 | 351.0 | 293.8 | 325.8 | 338.1 | 299.1 | 297.0 | 370.7 | 382.9 |
| Medical sciences, total | 879.9 | 903.7 | 979.6 | 1,048.5 | 1,097.5 | 1,223.1 | 1,163.8 | 1,323.8 | 1,367.8 | 1,514.1 | 1,532.7 |
| Life sciences, n.e.c. | 89.9 | 58.7 | 102.9 | 102.4 | 100.4 | 113.0 | 123.3 | 167.6 | 136.9 | 148.1 | 160.2 |
| Psychology, total | 114.8 | 117.9 | 128.5 | 147.9 | 158.8 | 194.3 | 201.0 | 222.4 | 212.0 | 234.5 | 233.5 |
| Biological aspects | 29.7 | 27.0 | 26.7 | 31.8 | 37.1 | 43.2 | 43.1 | 49.1 | 52.9 | 60.8 | 65.3 |
| Social aspects | 63.5 | 63.3 | 64.4 | 71.8 | 74.3 | 96.0 | 98.3 | 108.9 | 108.4 | 111.8 | 116.5 |
| Psychological sci, n.e.c. | 21.5 | 27.7 | 37.4 | 44.3 | 47.4 | 55.1 | 59.7 | 64.4 | 50.7 | 61.9 | 51.7 |
| Physical sciences, total | 780.0 | 895.6 | 1,106.5 | 1,304.3 | 1,241.0 | 1,230.8 | 1,154.6 | 1,156.6 | 1,117.7 | 1,198.8 | 1,147.2 |
| Astronomy | 6.3 | 6.8 | 4.7 | 3.0 | 2.7 | 14.1 | 15.1 | 17.7 | 12.3 | 17.3 | 17.2 |
| Chemistry | 197.6 | 188.7 | 169.2 | 158.1 | 203.0 | 225.4 | 229.0 | 235.2 | 232.3 | 278.0 | 259.6 |
| Physics | 514.4 | 610.2 | 819.8 | 999.5 | 915.0 | 856.1 | 802.6 | 781.4 | 769.8 | 795.5 | 780.6 |
| Physical sciences, n.e.c. | 61.8 | 89.9 | 112.9 | 143.7 | 120.3 | 135.2 | 107.9 | 122.4 | 103.3 | 108.0 | 89.8 |
| Environmental sciences, total | 738.6 | 588.2 | 628.3 | 671.2 | 619.2 | 704.0 | 732.6 | 730.6 | 734.3 | 756.3 | 899.3 |
| Atmospheric sciences | 230.5 | 199.6 | 262.6 | 288.1 | 242.0 | 276.8 | 280.9 | 309.1 | 307.1 | 271.6 | 329.7 |
| Geological sciences | 203.4 | 201.9 | 180.1 | 155.2 | 161.0 | 179.0 | 178.4 | 175.6 | 174.3 | 207.8 | 221.4 |
| Oceanography | 131.4 | 118.4 | 106.8 | 147.9 | 143.4 | 179.3 | 205.4 | 177.6 | 190.9 | 198.4 | 220.4 |
| Environmental sci, n.e.c. | 173.3 | 68.4 | 78.7 | 80.0 | 72.9 | 69.0 | 67.9 | 68.3 | 61.9 | 78.5 | 127.8 |
| Math & computer sci, total | 124.7 | 138.6 | 185.0 | 211.3 | 199.5 | 314.9 | 322.0 | 334.3 | 329.6 | 389.7 | 433.9 |
| Mathematics | 24.1 | 38.6 | 37.3 | 32.6 | 37.1 | 53.4 | 42.1 | 46.1 | 52.5 | 68.3 | 65.0 |
| Computer sciences | 82.4 | 69.3 | 103.5 | 124.1 | 109.7 | 164.2 | 171.0 | 169.3 | 167.2 | 205.1 | 336.9 |
| Math & computer sci, n.e.c. | 18.2 | 30.7 | 44.3 | 54.6 | 52.7 | 97.3 | 108.9 | 118.9 | 109.9 | 116.3 | 31.9 |
| Engineering, total | 2,364.9 | 2,545.4 | 2,776.1 | 2,827.5 | 2,779.1 | 2,733.4 | 2,770.4 | 2,916.8 | 2,950.2 | 3,258.4 | 3,125.1 |
| Aeronautical | 604.0 | 596.3 | 614.7 | 679.9 | 634.9 | 546.5 | 549.3 | 573.0 | 570.8 | 658.9 | 657.5 |
| Astronautical | 275.1 | 270.8 | 245.9 | 271.1 | 344.4 | 383.2 | 474.4 | 575.9 | 526.9 | 618.5 | 518.5 |
| Chemical | 70.2 | 116.3 | 59.9 | 94.6 | 88.9 | 179.9 | 172.8 | 138.3 | 169.5 | 92.2 | 166.0 |
| Civil | 136.8 | 135.8 | 169.9 | 156.0 | 161.0 | 173.0 | 157.8 | 158.7 | 168.7 | 178.1 | 270.4 |
| Electrical | 446.6 | 478.2 | 518.6 | 519.1 | 499.7 | 481.9 | 518.1 | 610.9 | 577.1 | 669.3 | 493.1 |
| Mechanical | 165.8 | 157.3 | 148.1 | 205.7 | 126.3 | 178.8 | 153.0 | 146.2 | 157.2 | 156.5 | 176.9 |
| Metallurgy & materials | 114.8 | 117.5 | 153.2 | 149.6 | 153.7 | 227.4 | 216.6 | 152.2 | 226.6 | 266.2 | 294.3 |
| Engineering, n.e.c. | 551.6 | 673.4 | 865.7 | 751.4 | 770.1 | 562.8 | 528.5 | 561.6 | 553.3 | 618.8 | 548.4 |
| Social sciences, total | 376.6 | 360.5 | 265.7 | 297.5 | 303.8 | 319.3 | 302.0 | 350.5 | 339.0 | 396.4 | 484.0 |
| Anthropology | 2.9 | 1.5 | 1.5 | 1.6 | 1.7 | 2.1 | 2.4 | 2.9 | 2.2 | 1.8 | 1.9 |
| Economics | 152.8 | 172.6 | 118.2 | 124.6 | 117.6 | 125.4 | 105.0 | 119.6 | 124.8 | 129.1 | 160.1 |
| Political science | 4.8 | 4.5 | 3.2 | 6.6 | 6.7 | 8.9 | 7.5 | 5.8 | 7.1 | 8.1 | 6.8 |
| Sociology | 46.1 | 42.4 | 33.3 | 35.0 | 36.3 | 34.0 | 37.0 | 39.6 | 45.0 | 55.9 | 92.0 |
| Social sciences, n.e.c. | 170.1 | 139.5 | 109.6 | 129.8 | 141.4 | 148.9 | 150.2 | 182.6 | 159.9 | 201.6 | 223.3 |
| Other sciences, n.e.c. | 285.7 | 313.5 | 231.0 | 247.1 | 261.7 | 242.2 | 260.9 | 307.4 | 271.0 | 350.0 | 361.5 |

NOTE: Because of rounding, detail may not add to totals.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1999, 2000, and 2001